

WHAT IS CLAIMED IS:

1. A system for comparing a received address with a set of validated addresses, the system comprising:

a remote device that is operative to receive address data from a source; and

an address matching server that maintains a database containing the set of validated addresses, wherein the address matching server is capable of communication with the remote device via a communication network, the address matching server being operative in response to receipt of the address data from the remote device to process the address data using at least one query permuter, compare the processed data with the set of validated addresses, and transmit one or more matches to the remote device.

2. The system of claim 1, wherein the source is a user manually entering address data into the remote device.

3. The system of claim 1, wherein the source is a database of addresses that is accessible by the remote device.

4. The system of claim 1, wherein the remote device and address matching server are capable of communication over a computer network.

5. The system of claim 4, wherein the computer network comprises the Internet.

6. The system of claim 1, wherein the server is operative to process the received address data to generate multiple data structures incorporating the address data.

7. The system of claim 6, wherein the server applies a plurality of query permuters to the address to generate the multiple data structures.

8. The system of claim 1, wherein the remote device is operative to maintain a companion file that contains information relating to validated addresses, and wherein the remote device is operative to write said information to the companion file.

9. The system of claim 1, wherein the remote device comprises a computer terminal.

10. The system of claim 1, wherein the remote device comprises one of a cellular telephone and wireless display device.

11. A method for validating an address entered by a user at a terminal, comprising:

receiving the address from a source;
accessing a database that contains one or more valid addresses;
comparing the address from the user with the database of valid addresses; and
storing information relating to the address in a companion file if a match is found.

12. The method of claim 11, wherein receiving the address comprises importing the address from a database of addresses.

13. The method of claim 12, wherein the address from the database of addresses is saved as comma-separated value (CSV) data, and further including:

determining selected characteristics of the database of addresses; and

processing the CSV address data based on the characteristics of the database of addresses.

5 14. The method of claim 11, further including:

receiving a second address from the source;

comparing selected information from the second address with stored information in the companion file;

10 approving the address for use if the selected information corresponds with the stored information in the companion file; and

accessing the database of valid addresses if no match is found.

15 15. The method of claim 14, wherein comparing the second address with the stored addresses in the companion file comprises determining whether a stored address in the companion file is stale, and rejecting the stored address if it is stale.

16. The method of claim 11, wherein accessing the database comprises accessing a remote database over a communication network.

20 17. The method of claim 16, wherein the database is maintained by a remote address matching server.

18. A method for matching an address with a database of valid addresses, comprising:

receiving address data in a particular format;

25 manipulating the data into a predetermined format corresponding to said particular format;

comparing data in the predetermined format with valid addresses in the database; and

presenting the results if one or more matches are found.

5 19. The method of claim 18, wherein comparing data in the predetermined format with valid addresses in the database comprises accessing a remote database of addresses over a communication network.

20. The method of claim 19 wherein the database is maintained by a remote address matching server.

10 21. The method of claim 18, wherein manipulating comprises applying a plurality of query permuters to the address data to convert the data into respective formats.

15 22. The method of claim 21, wherein applying a plurality of query permuters comprises applying at least one of a direct permuter and a single line permuter to the address data.

23. The method of claim 22, wherein applying further comprises applying a truncate permuter to the output structure of the direct permuter.

20 24. A method for importing one or more addresses from a database of addresses, where the database of addresses stores address data in a selected format, the method comprising:

storing the one or more addresses at the database of addresses in the selected format;

25 receiving the address data along with identification data to identify at least a characteristic of the database of addresses;

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processing the identification data; and
processing the address data in a particular manner based on
the identification data corresponding to the database of addresses.

25. The method of claim 24, wherein storing the one or more
5 addresses in a particular format comprises storing the one or more
addresses in a comma-separated value (CSV) format.

26. The method of claim 24, wherein receiving the address
data along with identification data comprises receiving the address
and identification data from an external database of addresses.

27. The method of claim 24, wherein receiving the
10 identification data comprises receiving identification information
input by a user.

28. A system for comparing a received address with a set of
validated addresses, the system comprising:

a remote device that maintains an internal address book in a
particular data format, the remote device including at least one
address book provider that is operative to interact with an
external address book, the provider being operative to access data
in the external address book and to provide data relating to
20 translation between a database structure of the external address
book and a second format; and

an address matching server that maintains a database
containing the set of validated addresses, wherein the address
matching server is capable of communication with the remote device
25 via a communication network, the address matching server being
operative in response to receipt of the address data and

translation data from the remote device to process the address data and transmit one or more matches to the remote device.

29. The system of claim 28, wherein the remote device includes at least two address book providers, wherein the address
5 book providers are compatible with respective external address books.

30. The system of claim 28, wherein the address book provider is operative to provide schema representation information to the server.

31. The system of claim 30, wherein the address book provider is operative to provide information for plural fields in the schema representation.

32. The system of claim 31, wherein the address book provider provides, for each field in the schema, one or more of the name of the field, a canonical field name to which the field is mapped, data type, data size, and attributes of that field.

33. A method of comparing a received address with a set of validated addresses, the method comprising:

identifying an address in an external address book;

accessing corresponding address data in the external address book with an address book provider that is operative to interface with the external address book;

checking the address data against a local companion file to determine whether the address is valid; and

validating the address at an address matching server that maintains a database of valid addresses if the result of the check with the local companion file does not validate the address.

5 34. The method of claim 33, wherein validating the address at the address matching server comprises providing the address data and information relating to the external address book to the server, and wherein the server is operative to process the address data in a particular manner based on the contents of said information.

10 35. The method of claim 33, wherein checking the address data against a local companion file comprises determining whether a record in the companion file is extant.

15 36. The method of claim 33, wherein checking the address data against a local companion file comprises comparing the address data with a hash value stored in the companion file.

37. The method of claim 33, wherein validating comprises validating the address at a remote address matching server.

38. A method of comparing a received address with a set of validated addresses, the method comprising:

20 identifying an address in an external address book;
accessing corresponding address data in the external address book with an address book provider; and
validating the address at a remote address matching server that maintains a database of valid addresses.

39. The method of claim 38, wherein validating the address at the remote address matching server comprises providing the address data and information relating to the external address book to the server, and wherein the server is operative to process the address data in a particular manner based on the contents of said information.

40. The method of claim 39, wherein the address matching server utilizes one or more query permuters to process the address data.

41. The method of claim 40, wherein applying a plurality of query permuters comprises applying at least one of a direct permuter and a single line permuter to the address data.

42. The method of claim 40, wherein the address matching server utilizes a plurality of query permuters to process the address data.

43. The method of claim 42, wherein applying a plurality of query permuters comprises applying at least one of a direct permuter and a single line permuter to the address data.

44. The method of claim 43, wherein applying further comprises applying a truncate permuter to the output of the direct permuter.

45. A method of comparing a received address with a set of validated addresses, the method comprising:
identifying an address in an external address book;

accessing corresponding address data in the external address book with an address book provider; and

validating the address at a server that maintains a database of valid addresses, wherein validating comprises using one or more query permuters to process the address data.

46. The method of claim 45, wherein validating comprising utilizing a plurality of query permuters.

47. The method of claim 46, wherein applying a plurality of query permuters comprises applying at least one of a direct permuter and a single line permuter to the address data.

48. The method of claim 45, wherein validating the address comprises validating the address at a remote address matching server.